

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

ASETEK HOLDINGS, INC., *et al.*,

No. C-12-4498 EMC

Plaintiffs,

v.

**ORDER RE CLAIM CONSTRUCTION
FOR COOLIT'S PATENT**

COOLIT SYSTEMS, INC.,

Defendant.

CoolIT is the owner of the '456 patent. It has accused Asetek of patent infringement. This order addresses claim construction for the '456 patent. A separate order provides the claim construction on Asetek's patent (the '362 and '764 patents).

I. LEGAL STANDARD

Claim construction is a question of law to be determined by the Court. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) ("hold[ing] that in a case tried to a jury, the court has the power and obligation to construe as a matter of law the meaning of language used in the patent claim"). "The purpose of claim construction is to 'determin[e] the meaning and scope of the patent claims asserted to be infringed.'" *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008).

Words of a claim are generally given their ordinary and customary meaning, which is the meaning a term would have to a person of ordinary skill in the art after reviewing the intrinsic record at the time of the invention. "In some cases, the ordinary meaning of claim language . . . may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words."

1 However, in many cases, the meaning of a claim term as understood
 2 by persons of skill in the art is not readily apparent.

3 *Id.*

4 Because the meaning of a claim term as understood by persons of skill
 5 in the art is often not immediately apparent, and because patentees
 6 frequently use terms idiosyncratically, the court looks to “those
 7 sources available to the public that show what a person of skill in the
 8 art would have understood disputed claim language to mean.” Those
 9 sources include “the words of the claims themselves, the remainder of
 10 the specification, the prosecution history, and extrinsic evidence
 11 concerning relevant scientific principles, the meaning of technical
 12 terms, and the state of the art.”

13 *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005). As a general matter, extrinsic
 14 evidence such as dictionaries and expert testimony is considered less reliable than intrinsic evidence
 15 (*i.e.*, the patent and its prosecution history). *See id.* at 1317-19 (noting that “extrinsic evidence may
 16 be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope
 17 unless considered in the context of the intrinsic evidence”).

18 **II. REPRESENTATIVE CLAIM**

19 As noted above, the only patent at issue here is the ‘456 patent. Claim 1 is a representative
 20 claim. Its text is provided below (with claims to be construed in bold).

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1. A computer cooling system comprising:

a **heat exchanger** and a pump circuit configured to provide a liquid coolant to the heat exchanger, the pump circuit including:

a pump including a housing defining therein an inner chamber having a fixed volume, the inner chamber including at least an impeller chamber and a **reservoir**, the impeller chamber and the reservoir being positioned directly adjacent to each other in the pump housing, separated from each other by a wall and in fluid communication with each other through a port in the wall;

an **inlet through the housing opening to the reservoir**, apart from the port;

an outlet through the housing opening from the impeller chamber, apart from the port;

a pumping mechanism in the impeller chamber;

a resiliently compressible member in the reservoir accommodating a portion of the fixed volume of the inner chamber, wherein the resiliently compressible member is compressible in response to expansion of the liquid coolant;

a **retainer** positioned in the inner chamber and configured to hold the resiliently compressible member in a position away from moving out of the inner chamber or into a position blocking fluid flow through the pump, wherein the retainer and the wall separating the impeller chamber and the reservoir are integrally formed to define a unitary construction;

a separable cap, apart from the resiliently compressible member, defining a recessed inner wall in fluid communication with the reservoir;

a pump discharge tubing extending between the pump outlet and the heat exchanger; and

a pump return tubing extending between the heat exchanger and the pump inlet, the pump circuit providing the liquid coolant to the heat exchanger in a closed loop drive by the pumping mechanism including a **flow path through the pump inlet into the reservoir, past the resiliently compressible member and out the port into the impeller chamber.**

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III. DISCUSSION

A. “heat exchanger”

CoolIT	Asetek	Court
plain and ordinary meaning	a liquid cooled device in thermal contact with a heat source that transfers heat from the heat source to a liquid	liquid-cooled heat exchanger

The basic dispute here is whether (1) a heat exchanger is something that can *only* absorb heat (*i.e.*, a liquid-cooled heat exchanger) or (2) a heat exchanger can be something that can absorb heat *or* that can dissipate heat (*e.g.*, a heat sink). Asetek advocates for the former position, and CoolIT the latter.

CoolIT’s position has some support. For example, the specification indicates that a heat exchanger can in fact be a heat sink:

With reference to FIG. 4, a pump **110** . . . may be used to move fluid through a pump circuit. For example, pump **110** may be used in a liquid cooled computer **138** to drive liquid coolant between *heat exchangers* [plural] such as a heat exchanger **139** in thermal communication with a heat source **140** and a heat sink **142**.”

‘456 patent, col. 2:61-67 (emphasis added). Also, the fact that the specification makes multiple references to a “*liquid cooled* heat exchanger,” *see, e.g.*, ‘456 patent, col. 1:32, 45 (emphasis added), suggests that the term “heat exchanger” without any modifier should be construed more broadly. *See Phillips*, 415 F.3d at 1314 (noting that “the context in which a term is used in the asserted claim can be highly instructive – *e.g.*, the use of the term “steel baffles” “strongly implies that the term ‘baffles’ does not inherently mean objects made of steel”).

However, the Court ultimately agrees with Asetek that the term “heat exchanger” *as used in the claims* (*see, e.g.*, claims 1 and 17, referring to a “heat exchanger” without any modifier of “liquid-cooled”) implicitly means a liquid-cooled heat exchanger. For example, in the ‘456 patent’s “Summary of the Invention,” there are repeated references to the “present invention” – and not just a preferred embodiment – consisting of, *inter alia*, a “liquid cooled heat exchanger.” *See American Med. Sys., Inc. v. Biolitec, Inc.*, 618 F.3d 1354, 1366 (Fed. Cir. 2010) (noting that “we have repeatedly held that ‘the use of the words “the present invention” can be read to limit the invention

to what is described as such”); *Honeywell Int’l, Inc. v. ITT Indus., Inc.*, 452 F.3d 1312, 1318 (Fed. Cir. 2006) (noting that “a fuel filter was not merely discussed as a preferred embodiment”; rather, “[o]n at least four occasions, the written description refers to the fuel filter as ‘this invention’ or ‘the present invention’”).

Also, the prosecution history repeatedly reflects the applicant’s understanding that the heat exchanger as claimed in the invention was a liquid-cooled heat exchanger. As Asetek points out, “for more than four-and-a-half years, from his filing of his patent application in May 2007 through a Notice of Allowance mailed on December 26, 2012, the inventor always described and limited his claimed ‘heat exchanger’ as ‘*a liquid cooled heat exchanger.*’” Docket No. 138 (Resp. Br. at 4) (emphasis in original). For example, in October 2012, the applicant submitted an amendment and response to an Office Action in which:

- (1) then-claim 34 (eventually claim 1 in the ‘456 patent) described the invention as “[a] computer cooling system comprising: [*inter alia*] a *liquid cooled heat exchanger* and a pump circuit configured to provide a liquid coolant to the *liquid cooled heat exchanger*,” and
- (2) then-claim 57 (eventually claim 17 in the ‘456 patent) described the invention as “[a] cooling system for a computer, wherein the cooling system comprises: [*inter alia*] a *liquid cooled heat exchanger* and a pump.”

Docket No. 138-6, at 3, 5 (Smyth Decl., Ex. E) (applicant’s amendment and response to Office Action) (emphasis added). It would be inherently inconsistent to construe “heat exchanger” as including a heat sink which only dissipates heat and have it be “liquid cooled.” If anything, a heat sink (or radiator) is liquid heated.

It is true that, after the Notice of Allowance in December 26, 2012, a change was made to then-claim 34 and then-claim 57 – *i.e.*, the modifier “liquid cooled” was dropped from the claims. Thus, claims 1 and 17 as eventually issued simply referred to a “heat exchanger” without any modifier of “liquid cooled.” *See* ‘456 patent, claims 1, 17. The prosecution history reflects that, during an interview in January 2013 (*i.e.*, approximately four months after Asetek filed suit against CoolIT), the patent applicant asked for the modifier “liquid cooled” to be deleted from then-claim 34 and then-claim 57, and the examiner agreed. *See generally* Docket No. 138-10 (Smyth Decl., Ex. I)

(applicant-initiated interview summary). Unfortunately, no explanation for the desired amendment was provided, nor was there any indication why the examiner agreed to the amendment.

However, it makes sense that “liquid cooled” could be easily deleted from then-claim 34 without changing the scope of the claim. As noted above, then-claim 34 described the invention as “[a] computer cooling system comprising: [*inter alia*] a liquid cooled heat exchanger and a pump circuit *configured to provide a liquid coolant* to the liquid cooled heat exchanger.” Docket No. 138-6, at 3 (Smyth Decl., Ex. E) (emphasis added). It was not necessary to refer to a “liquid cooled heat exchanger” because the surrounding language in the claim already made clear that liquid coolant was being provided to the heat exchanger.

Admittedly, the same rationale cannot be applied to then-claim 57 – *i.e.*, there is no surrounding claim language that makes the “liquid cooled” modifier surplusage. However, here, Asetek makes a convincing argument that, if CoolIT meant to broaden the scope of the claim, then it should have provided an explanation for the amendment. Section 714.16 of the Manual of Patent Examining Procedure specifies that, after a notice of allowance has issued (as here), a patent applicant may not amend as a matter of right but rather must get approval of the PTO,¹ and that, if the amendment affects the scope of any claim,

the remarks accompanying the amendment must fully and clearly state the reasons on which reliance is placed to show:

- (A) why the amendment is needed;
- (B) why the proposed amended or new claims require no additional search or examination;
- (C) why the claims are patentable; and
- (D) why they were not presented earlier.

¹ See also 37 C.F.R. § 1.312 (providing that “[n]o amendment may be made as a matter of right in an application after the mailing of the notice of allowance[;] [a]ny amendment filed pursuant to this section must be filed before or with the payment of the issue fee, and may be entered on the recommendation of the primary examiner, approved by the Director, without withdrawing the application from issue”).

Docket No. 138-11 (Smyth Decl., Ex. J) (MPEP § 714.16).² While the Manual is not binding authority, a court may take judicial notice of a provision from the Manual. *See In re Hubbell*, 709 F.3d 1140, 1146 (Fed. Cir. 2013) (stating that, “[a]lthough the MPEP is not binding on this court, we can take judicial notice of this provision to the extent it does not conflict with statutory text”).

Moreover, in *Genzyme Corp. v. Transkaryotic Therapies, Inc.*, 346 F.3d 1094 (Fed. Cir. 2003), the Federal Circuit held that a patent applicant cannot broaden a claim through a last-minute amendment after final action by the PTO where the applicant failed to provide an explanation for the amendment in the prosecution history. In *Genzyme*, Genzyme accused TKT of infringing the ‘804 patent, for which Genzyme was the exclusive licensee. “The ‘804 patent claim[ed] a method of producing [a human enzyme known as] human alpha-galactosidase A (alpha-Gal A) and cells engineered to express and secrete active human alpha-Gal-A. Administration of the alpha-Gal A protein treats patients suffering from Fabry disease, a condition triggered by a deficiency in this enzyme.” *Id.* at 1096. “TKT’s allegedly infringing product involve[d] a technique known as gene activation. Under this technique, a DNA sequence acting as a promoter is inserted into a human host cell, whereupon the *endogenous* human cellular gene encoding a-Gal A is activated to express the endogenous human a-Gal A protein.” *Id.* (emphasis added). It was not disputed that “TKT’s technique does not introduce an *exogenous* a-Gal A gene into human host cells.” *Id.* (emphasis added). After the district court construed the term “chromosomally integrated” to require an exogenously introduced gene sequence, Genzyme conceded that it could not prevail on infringement and so the district court entered summary judgment in TKT’s favor. *See id.* at 1097.

² Section 714.16 also indicates that, after a notice of allowance has issued, the patent application is technically no longer under the jurisdiction of the primary examiner. He or she can, however, make examiner’s amendments (see MPEP § 1302.04) and has authority to enter amendments submitted after Notice of Allowance of an application *which embody merely the correction of formal matters in the specification or drawing, or formal matters in a claim without changing the scope thereof, or the cancellation of claims from the application*, without forwarding to the supervisory patent examiner for approval.

Docket No. 138-11 (Smyth Decl., Ex. J) (MPEP § 714.16) (emphasis added).

The Federal Circuit upheld the district court's decision. The court noted first that the patent specification supported the exogenous limitation. *See, e.g., id.* at 1099 (noting that "[t]he term 'host cell' means that the cell 'hosts' or 'receives' genetic material other than its own to perform its service"). It then went on to state that the prosecution history did not "permit a broad interpretation of the claim term 'chromosomally integrated.'" *Id.* at 1101. As one example, the court noted that, after the examiner issued a final rejection of the patent application, the patent applicant submitted a supplemental amendment under 37 C.F.R. § 1.116, in which it replaced

the phrase "transformed with a recombinant vector which includes a nucleotide sequence encoding alpha-galactosidase A" with the phrase "chromosomally integrated nucleotide sequence encoding human alpha-galactosidase A." The examiner and applicant agreed on this language during an after-final rejection examiner interview. The record does not explain the reasons the examiner finally accepted this language.

Contrary to Genzyme's position, this eleventh-hour amendment did not operate to broaden the claims to eliminate the requirement of insertion of an exogenous gene into a host cell. In the first place, the deposit requirement, the specification, the applicant's arguments to distinguish prior art, the examiner's responses, and Dr. Mellman's declaration [expert declaration submitted by Genzyme] repeatedly stressed that the invention envisioned insertion of an exogenous gene sequence into a host cell. A clarifying amendment at the last moment could not negate that extensive public record.

More important, the examiner could not accept a second (supplemental) after-final amendment broadening the scope of the rejected claims without formal comment from the applicant. Under the applicable Patent Office rules, amendments to patent claims after final rejection cannot alter the substantive scope of the claims without explanation about the necessity of the amendment and without reasons for the delay in proposing the change. *See* 37 C.F.R. § 1.116(b) (1992) ("If amendments touching the merits of the application . . . are presented after final rejection . . . they may be admitted upon showing of good and sufficient reasons why they are necessary and were not presented earlier."). If this amendment markedly broadened the claims, it satisfied neither of those requirements. The record supplies no explanation from the applicant or the examiner that these changes were both "necessary" and justifiably "not earlier presented." Thus, according to PTO rules, the examiner could not have allowed this amendment if it changed at all the scope of the claims set forth in the deposit requirement, the specification, the arguments of the applicant, and Dr. Mellman's declaration.

The record instead suggests that the examiner felt this last-minute change did not alter the scope of the claims. The examiner's comments did not distinguish these newly amended claims from the prior art, but simply noted that the claims had to recite that the alpha-

Gal A was overexpressed and secreted. Likewise, the applicant did not address any change in the scope of the claims. In any event, the examiner could not have permitted any Rule 116 amendment that expanded the claims to make the introduction of exogenous DNA into a host cell optional.

Id. at 1103-04 (emphasis added).

There are differences, of course, between the instant case and *Genzyme*. In *Genzyme*, the final office action prior to amendment was a rejection of the application, whereas here the final office action prior to amendment was a notice of allowance. *See* Docket No. 146 (Reply at 4) (CoolIT arguing that *Genzyme* is distinguishable because, there, the amendment was made “solely in order to secure patentability” and, “[b]y contrast, CoolIT’s claim amendment, which was accepted by the PTO, was made after allowance and not in order to secure patentability”). Also, in *Genzyme*, there was a federal regulation that required an explanation for the amendment, whereas here there is only a provision in the Manual that requires an explanation for the amendment. Nevertheless, these differences are not material – *i.e.*, the broader point to be gleaned from *Genzyme* is that a last-minute amendment after final office action cannot be said to broaden the scope of a claim absent an explanation by the applicant and/or examiner. Whether the office action is rejection or allowance, the post-action amendment such as the one here has a material impact on the scope of the patent which is inconsistent with the prosecution history available to the public. As the Manual and *Genzyme* suggest, such an amendment to be effective requires more than an unexplained acceptance by the examiner.

Accordingly, the Court concludes that Asetek’s position is, in general, the more reasonable one. While the specification does indicate that a heat exchanger can be a heat sink, it also reflects that the invention claimed (the “present invention”) must involve a liquid-cooled heat exchanger, and thus the use of the term “heat exchanger” in claims and 17 implicitly refers to a liquid-cooled heat exchanger, as supported by the prosecution history up through the Notice of Allowance, mailed on December 26, 2012. The last-minute amendment made by the applicant after the Notice of Allowance shall not be given any weight because, if it was intended to broaden the scope of the claims, there was no explanation for it, either by the applicant or the examiner.

The Court, however, shall not adopt Asetek's construction and, instead, shall limit its construction of the term "heat exchanger" to "liquid-cooled heat exchanger," as that is what is consistent with the specification and prosecution history. The Court acknowledges Asetek's concern that CoolIT might try to argue that a heat sink is liquid cooled when, in actuality, it is liquid heated, but Asetek is free to make the argument to the jury that a heat sink is liquid heated rather than liquid cooled.

B. "inlet through the housing opening to the reservoir"

CoolIT	Asetek	Court
plain and ordinary meaning	inlet from outside the housing allowing coolant to flow directly into the reservoir	plain and ordinary meaning

CoolIT objects to Asetek's construction because it includes inappropriate limitations – namely, requiring that "the inlet be 'from outside' the housing and that it 'allow[] coolant to flow directly into the reservoir.'" Docket No. 125 (Op. Br. at 9). In response, Asetek argues that this interpretation is what the patent applicant offered during prosecution.

The prosecution history, however, does little more than regurgitate what the claim term "inlet through the housing opening into the reservoir" already says on its face. For example, the patent applicant stated as follows with respect to an amendment of then-claim 34:

Independent claim 34 has been amended to clarify that the coolant circuit defines a coolant flow path through the reservoir: in through an inlet, past the member and out through a port, which is separate from the inlet. This provides the benefit that coolant flows directly through the reservoir and into contact with the compressible member on every circuit. For example, any bubbles that become entrained in the coolant are moved directly with the coolant flow into the reservoir, where they can be retained. Further, in such a system, the reservoir containing the compressible member cannot become isolated from the pump circuit.

Docket No. 138-4 (Smyth Decl., Ex. C) (Resp. at 5).

The Court therefore declines to provide any construction of the term other than plain and ordinary meaning.

C. “retainer”

CoolIT	Asetek	Court
plain and ordinary meaning	governed by 35 U.S.C. § 112, ¶ 6; claimed function in claim 1 – configured to hold the resiliently compressible member in a position away from moving out of the inner chamber or into a position blocking fluid flow through the pump; claimed function in claim 17 – configured to prevent the resiliently compressible member from blocking a fluid flow through the port in the housing wall; structure corresponding to the function – standoffs (ridges “52” of FIGS. 1 and 3)	not governed by 35 U.S.C. § 112, ¶ 6; plain and ordinary meaning

Title 35 U.S.C. § 112(f) provides that

[a]n element in a claim for a combination may be expressed as a means or step for performing a specified function *without* the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112(f) (emphasis added). As the Federal Circuit has noted, “[m]eans-plus-function claiming applies only to purely functional limitations that do not provide the structure that performs the recited function.” *Phillips*, 415 F.3d at 1311. Here, the parties’ dispute centers on whether the “retainer” limitation in the claims of the ‘456 patent is a means-plus-function limitation. Asetek argues that it is a means-plus-function limitation; CoolIT argues to the contrary. If Asetek is correct, then it maintains that the structure corresponding to the function is “standoffs (ridges ‘52’ of FIGS. 1 and 3),” while CoolIT argues that the corresponding structure is “protrusions.” For the reasons discussed below, the Court agrees with CoolIT that the “retainer” limitation is not in fact a means-plus-function limitation.

First, as CoolIT points out, where a claim limitation actually uses the word “means,” that “will invoke a rebuttable presumption that § 112 ¶ 6 applies”; but, if a claim term does not use “means,” that “will trigger the rebuttable presumption that § 112 ¶ 6 does not apply.” *CCS Fitness v. Brunswick Corp.*, 288 F.3d 1359, 1369 (Fed. Cir. 2002). Here, the “retainer” limitation does not phrase the limitation in means-plus-function language, and therefore, there is a rebuttable presumption that § 112 ¶ 6 (now § 112(f)) does not govern.

Second, Asetek is correct that the presumption can be rebutted, but “the presumption flowing from the absence of the term ‘means’ is a strong one that is not readily overcome.” *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1358 (Fed. Cir. 2004); *see also Flo Healthcare Solns., LLC v. Kappos*, 697 F.3d 1367, 1374 (Fed. Cir. 2012) (stating that, “[w]hen the claim drafter has not signaled his intent to invoke § 112, ¶ 6 by using the term ‘means,’ we are unwilling to apply that provision without a showing that the limitation is devoid of anything that can be construed as structure”). The party seeking to rebut the presumption must “demonstrate[] that the claim term [here, ‘retainer’] fails to ‘recite sufficiently definite structure’ or else recites a ‘function without reciting sufficient structure for performing that function.’” *CCS Fitness*, 288 F.3d at 1369. “This burden must be met by a preponderance of the evidence.” *Apex Inc. v. Raritan Comp., Inc.*, 325 F.3d 1364, 1372 (Fed. Cir. 2003).

Notably,

[i]n considering whether a claim term recites sufficient structure to avoid application of section 112 ¶ 6, [the Federal Circuit has] not required the claim term to denote a specific structure. Instead, [the court has] held that it is sufficient if the claim term is used in common parlance or by persons of skill in the pertinent art to designate structure, even if the term covers a broad class of structures and even if the term identifies the structures by their function.

Lighting World, 382 F.3d at 1359-60. The court has further noted that, even where a term

does not bring to mind a particular structure, that point is not dispositive. What is important is whether the term is one that is understood to describe structure, as opposed to a term that is simply a nonce word or a verbal construct that is not recognized as the name of structure and is simply a substitute for the term “means for.”

Id. at 1360. For example, “generic terms [such as] ‘mechanism,’ ‘means,’ ‘element,’ and ‘device’ typically do not connote sufficiently definite structure.” *MIT v. Abacus Software*, 462 F.3d 1344,

1 1354 (Fed. Cir. 2006).³ Finally, the Federal Circuit has noted that it can be helpful to “look[] to the
2 dictionary to determine if a disputed term has achieved recognition as a noun denoting structure,
3 even if the noun is derived from the function performed.” *Lighting World*, 382 F.3d at 1360.

4 In the case at bar, the claim term “retainer” is far from being a nonce word, a verbal
5 construct not recognized as the name of structure, or a generic term. Indeed, there is a dictionary
6 definition for the word “retainer” – *i.e.*, “a device or structure that holds something in place.”
7 <http://www.merriam-webster.com/dictionary/retainer> (last visited November 27, 2013). Thus, the
8 term “retainer” does in fact recite sufficiently definite structure.

9 In its papers, Asetek protests that the term does not connote sufficiently definite structure
10 based on (1) an expert declaration⁴ and (2) a Federal Circuit case involving a similar claim term.
11 Neither argument is availing.

12 First, Asetek has submitted a declaration from Dr. Donald E. Tilton, in which he states that,
13 “[i]n the field of mechanical engineering, the term ‘retainer’ could mean any one of a great
14 multitude of possible structures or mechanisms for retaining something in place. A ‘retainer’
15 without further description or explanation, does not connote any particular structure or class of
16 structures.” Docket No. 138-16 (Tilton Decl. ¶ 11). The Court, however, shall not entertain the
17 Tilton declaration because Asetek failed to identify Dr. Tilton as a witness in the parties’ Joint
18 Claim Construction and Prehearing Statement. *See* Pat. L.R. 4-3(e) (requiring parties to provide
19 information as to “[w]hether any party proposes to call one or more witnesses at the Claim
20 Construction Hearing, the identity of each such witness, and for each witness, a summary of his or
21 her testimony, including for any expert, each opinion to be offered related to claim construction”).
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24 ³ *But see Flo Healthcare*, 697 F.3d at 1374 (noting that “the generic term ‘mechanism’
25 standing alone may connote no more structure than the term ‘means’” but that “surrounding claim
26 language further defining the mechanism can add sufficient structure to avoid a § 112 ¶ 6
construction”).

27 ⁴ *See Lighting World*, 382 F.3d at 1358 (noting that “[t]he task of determining whether the
28 limitation in question should be regarded as a means-plus-function limitation, like all claim
construction issues, is a question of law for the court, even though it is a question on which evidence
from experts may be relevant”).

Even if the Court were to consider the Tilton declaration, it still would not dictate a conclusion that the “retainer” limitation is a means-plus-function limitation for two reasons:

- (1) Under Federal Circuit case law, a claim term denotes sufficiently specific structure not only if the term is used by persons of skill in the pertinent art to designate structure but also if the term is used in common parlance, *see Lighting World*, 382 F.3d at 1359-60, and here “retainer” is used in common parlance as indicated by the above dictionary definition; and
- (2) Dr. Tilton’s declaration seems premised on an incorrect understanding of Federal Circuit law. *Cf. id.* at 1359, 1363 (criticizing expert opinion for applying an unduly restrictive standard).

Second, Asetek relies on *Aspex Eyewear, Inc. v. Altair Eyewear, Inc.*, 288 Fed. Appx. 697 (Fed. Cir. 2008), to support its contention that the “retainer” limitation in the case at bar should be deemed a means-plus-function limitation. But *Aspex* is distinguishable from the instant case. In *Aspex*, the issue was whether the claim term “retaining mechanism” was a means-plus-function limitation. Clearly, the term “retaining mechanism” is not one that appears in a dictionary (as opposed to “retainer”). And the fact that the generic term “mechanism” was part of the claim term – indeed, it was the subject noun – was an important factor in the court’s decision to construe the claim term as a means-plus-function limitation: “Here, ‘mechanism’ is a generic term, and its modifier, ‘retaining,’ is also quite broad, meaning ‘to hold back, keep, restrain.’” *Id.* at 703. Compare *Greenberg v. Ethicon Edon-Surgery, Inc.*, 91 F.3d 1580 (Fed. Cir. 1996) (holding that § 112 ¶ 6 did not apply to the claim limitation “detent mechanism” because dictionary definitions established that “the noun ‘detent’ denotes a type of device with a generally understood meaning in the mechanical arts”).

Moreover, *Aspex* is an unpublished case, and therefore is not binding precedent. Indeed, more recent Federal Circuit authority suggests that *Aspex* should be limited to its facts. In *Flo Healthcare*, the court considered whether the claim term “height adjustment mechanism” should be deemed a means-plus-function limitation. “Mechanism” is clearly a generic term and “adjustment” seems just as broad a term as “retaining.” Nevertheless, the Federal Circuit held that the claim term “height adjustment mechanism” was not a means-plus-function limitation. “Dictionary definitions .

.. show that the noun ‘adjustment,’ which modifies ‘mechanism’ here, has a reasonably well understood meaning as a name for a structure.” *Flo Healthcare*, 697 F.3d at 1374 (citing the Random House Unabridged Dictionary).

To the extent Asetek relies on Federal Circuit cases other than *Aspex*, those cases are not of any real substantive support. *See* Docket No. 16 (Resp. Br. at 16) (citing *Mas-Hamilton Group v. LaGard, Inc.*, 156 F.3d 1206 (Fed. Cir. 1998), and *MIT*, 462 F.3d at 1344). Notably, those cases involved claims terms that incorporated generic terms – “element” in *Mas-Hamilton* and “mechanism” in *MIT*. Furthermore, the Federal Circuit has expressly deemed *Mas-Hamilton* an “exceptional case.” *Lighting World*, 382 F.3d at 1362 (emphasizing how “unusual the circumstances” were in *Mas-Hamilton*).

Finally, it is worth noting (as CoolIT points out) that, in a post-*Aspex* decision, Judge Seeborg of this District found that the claim term “retainer device” was not a means-plus-function limitation. *See Aqua-Lung Am., Inc. v. American Underwater Prods., Inc.*, No. C 07-2346 RS, 2009 U.S. Dist. LEXIS 18172, at *19-23 (N.D. Cal. Feb. 26, 2009).

Accordingly, the Court rejects Asetek’s contention that the “retainer” limitation is a means-plus-function limitation. The Court also declines to construe the term further than its plain and ordinary meaning.

D. “flow path through the pump inlet into the reservoir, past the resiliently compressible member and out the port into the impeller chamber”

CoolIT	Asetek	Court
plain and ordinary meaning	a flow path in which coolant flows through the pump inlet first into the reservoir, contacts the resiliently compressible member, and then flows out the port into the impeller chamber	plain and ordinary meaning

CoolIT objects to Asetek’s proposed construction on the ground that it imposes a limitation – *i.e.*, a specific sequence or order – that is not suggested by the claim language. *See* Docket No. 146

(Reply at 8) (asserting that the “claim language merely sets forth three activities”). According to Asetek, its construction is supported by the prosecution history, but that argument is not persuasive.

The history on which Asetek relies is the same as that referenced in Part III.D, *supra*. More specifically, in a response to an office action from the PTO, the patent applicant amended then-claim 34, stating as follows:

Independent claim 34 has been amended to clarify that the coolant circuit defines a coolant flow path through the reservoir: in through an inlet, past the member and out through a port, which is separate from the inlet. This provides the benefit that coolant flows directly through the reservoir and into contact with the compressible member on every circuit. For example, any bubbles that become entrained in the coolant are moved directly with the coolant flow into the reservoir, where they can be retained. Further, in such a system, the reservoir containing the compressible member cannot become isolated from the pump circuit.

Docket No. 138-4, at 6 (Smyth Decl., Ex. C) (response). The above language does not necessarily require a specific flow sequence as limited by Asetek’s construction. For example, under Asetek’s construction, coolant would first come in through an inlet and only thereafter contact the resiliently compressible member; but based on the prosecution history (as well as the claim language), it is not clear that coolant coming through an inlet could not at the same time contact the compressible member as it enters the reservoir. The plain language of the claim already describes a flow path; nothing more is needed.

The Court therefore declines to construe the term any further other than its plain and ordinary meaning.

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E. “reservoir”

CoolIT	Asetek	Court
region of the integrated element/housing not in normal fluid flow and available to accommodate fluid expansion; or, alternatively, fluid containing portion of the device that includes a region not in the normal fluid flow and available to accommodate fluid expansion	a fluid compartment within the inner chamber that contains the resiliently compressible member	a receptacle or chamber for holding a liquid or fluid

For the term “reservoir,” both parties have submitted somewhat problematic constructions. For example, Asetek’s construction is problematic largely because it replicates surrounding claim language. For example, claim 1 of the ‘456 patent makes clear that a reservoir is within the inner chamber and contains the resiliently compressible member. *See* ‘456 patent, claim 1 (describing a “computer cooling system comprising,” *inter alia*, “a pump including a housing defining therein an inner chamber . . . , the inner chamber including at least an impeller chamber and a reservoir” and “a resiliently compressible member in the reservoir”). CoolIT’s construction also contains a redundancy to the extent it refers to accommodation of fluid expansion. *See* ‘456 patent, claim 1 (providing that the resiliently compressible member in the reservoir “is compressible in response to expansion of the liquid coolant”).

To the extent CoolIT argues that a construction of “reservoir” should at the very least include a “not in normal fluid flow” limitation, the Court is not persuaded. In its papers, CoolIT failed to point to any intrinsic record support, including the specification, for this limitation. The Court acknowledges that, at the hearing, CoolIT suggested for the first time that the part of the reservoir not in normal fluid flow is the space occupied by the resiliently compressible member. But, notably, CoolIT did not foreclose the possibility that a resiliently compressible member could be a porous sponge⁵ in which case the area occupied by the member could be a part of the fluid flow. And in

⁵ CoolIT simply stated that the preferred embodiment for the compressible member was a closed cell foam.

any event, the construction that the Court adopts does not foreclose CoolIT from arguing that the space occupied by the resiliently compressible member may in certain embodiments have no fluid flow. There is no need to so define “reservoir” as incorporating that particular embodiment.

The Court adopts the dictionary definition of the term “reservoir”; although it is extrinsic evidence, it is entirely compatible with the intrinsic evidence of record. *See, e.g.*, ‘456 patent, col. 1:5-7 (stating that “an expansion/reservoir vessel is used to store the pump fluid”). Furthermore, CoolIT indicated at the hearing that it would not object to this construction, and the dictionary definition is also consistent with Asetek’s construction.

F. “loose in the inner chamber”

CoolIT	Asetek	Court
not adhered to the inner chamber	not tightly fitted in the inner chamber	not secured in the inner chamber

The term “loose in the inner chamber” appears in claim 7 of the ‘456 patent: “7. The computer cooling system of claim 1 wherein the resiliently compressible member is loose in the inner chamber.”

CoolIT’s construction is closer to the mark rather than Asetek’s, though not perfect. The specification provides in relevant part as follows:

Member 20 may be secured to the housing or may be loose in a chamber in the pump circuit. However, it is desired that the member remain substantially in position without blocking fluid flow through the pump circuit or the chamber in which it is positioned. Thus, in one embodiment member 20 may be secured to the housing inner walls defining the inner chamber. For example, the member may be fastened directly to the housing inner walls by adhesive 50 applied at interfacing surfaces, interlock, fasteners, etc. Alternately or in addition, a retainer may be formed or positioned within the chamber to hold the member in a positing away from moving out of the chamber or into a blocking position against the fluid ports. For example, in the illustrated embodiment, protrusions such as ridges 52 and spacer are positioned to retain member in a spaced relation from inlet 14 and port 28, even if member 20 is or becomes loose in the reservoir chamber. In addition, or alternately, member 20 may be selected to be large enough, such as by forming as one piece and/or with consideration as to the sizes of any ports to the chamber in which it is positioned, such that it cannot pass through any ports.

‘456 patent, col. 3:48-67 (emphasis added). The first sentence above reflects that the resiliently compressible member is loose when it is not secured. CoolIT uses the term “not adhered” rather than “not secured,” but that is too narrow given that, as reflected by the excerpt above, using an adhesive is only one example of how the member may be secured to the housing walls.

Asetek’s proposed construction is largely dependent on what it claims is the commonly understood meaning of loose. But notably, even the dictionary definition it provides has as the *first* definition of loose “not rigidly fastened or securely attached.” Docket No. 138-15 (Smyth Decl., Ex. M). Also, Asetek admits in its brief that loose can also mean “having relative freedom of movement” and not just “not tight fitting.” Docket No. 138 (Resp. Br. at 23). And in any event, a dictionary definition – because extrinsic evidence – should not take precedence over the specification which is intrinsic evidence.

G. “urge against”

CoolIT	Asetek	Court
touching	pushes against	press against

The term “urge against” appears in claim 14 of the ‘456 patent: “**14.** The computer cooling system of claim 1 wherein the resiliently compressible member and the retainer urge against each other regardless of a degree of expansion or contraction of the cooling liquid.” It appears that “urge” is not used anywhere in the specification – *i.e.*, the term shows up only in claim 14.

Here, CoolIT takes the position that “urge against” should simply be construed as touching because “[t]he purpose of the retainer, as described in the specification, is to secure the resiliently compressible member in the inner chamber to avoid the resiliently compressible member [from] interfering with fluid flow or blocking the ports.” Docket No. 125 (Op. Br. at 13-14). Asetek in turn contends that “the term ‘urge’ requires more than mere touching; it requires force.” Docket No. 138 (Resp. Br. at 24). According to Asetek, this is consistent with the dictionary definition of the word “urge”; furthermore, mere touching is not enough for the retainer to hold the resiliently compressible member in place.


1 The Court concludes that Asetek has the better position. First, the dictionary definition does
2 support Asetek. *See* Docket No. 138-15 (Smyth Decl., Ex. M) (defining “urge” as, *inter alia*, “to
3 force or impel in an indicated direction or into motion or greater speed”). Although CoolIT
4 contends that the dictionary definition should be given little to no weight because it is extrinsic
5 evidence, such a definition is consistent with the language of the claims themselves, and nothing
6 suggests one practiced in the art would have interpreted the term in a manner not consistent with
7 common parlance. Furthermore, if “urge against” simply meant touch, then it would be odd not to
8 use language similar to that in claim 1, which describes a “retainer . . . configured to *hold* the
9 resiliently compressible member in a position away from moving out of the inner chamber or into a
10 position blocking fluid flow through the pump.” ‘456 patent, claim 1 (emphasis added). By using
11 “urge” instead of “hold” or “touch,” there is a suggestion that there is more than mere touching.
12 However, “push” – as suggested by Asetek – appears extreme. A better term that conveys the same
13 overall meaning consistent with both intrinsic and extrinsic evidence is “press.”

14 IV. CONCLUSION

15 The disputed claim terms of the patents-in-suit are hereby construed as set forth above.

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17 IT IS SO ORDERED.

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19 Dated: December 3, 2013

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21 EDWARD M. CHEN
22 United States District Judge
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